



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,823	02/21/2002	Yoshinori Hino	10417-120001 / F51-143214	9545
26211	7590	03/15/2004	EXAMINER	
FISH & RICHARDSON P.C. 45 ROCKEFELLER PLAZA, SUITE 2800 NEW YORK, NY 10111			KIK, PHALLAKA	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/080,823

Applicant(s)

HINO ET AL.

Examiner

Phallaka Kik

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7-10-20 is/are pending in the application, *wherein claims 8-9 are cancelled*.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1-3, 10-13, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action response to Applicant's amendment filed on 10/31/2003. Claims 1-7,10-20 are pending, wherein claims 1-7,10-17 have been amended, claims 8-9 have been cancelled, and claims 18-20 are newly added. Claims 1-7,10-20 have been examined, wherein as per claims 4-7,14-17, the claims are objected to due to minor informalities and/or due to the base claim being rejected, wherein as per claim 18, the claim is allowed, wherein as per claims 1-3, Applicant's arguments are not persuasive (therefore, the previous Office Action is incorporated herein), wherein as per claims 10-13,19-20, the claims are newly rejected as being necessitated by Applicant's amendment.

#### *Priority*

2. As indicated in the previous Office Action mailed on 8/1/2003, acknowledgment is made of applicant's claim for foreign priority based on applications filed in Japan on 2/28/2001 and 3/6/2001. Again, it is noted, however, that applicant has not filed a certified copy of the P 2001-0536327, P 2001-053628, and P 2001-061828 applications as required by 35 U.S.C. 119(b).

#### *Drawings*

3. The drawings were received on 10/31/2003. These drawings are acceptable.

#### *Claim Objections*

4. **Claims 10-17,19-20** is objected to because of the following informalities:

As per **claim 10**, --, said wirings are-- should be inserted after "drivers" (line 7) to clarify that the wirings and not the drivers are peripherally disposed to circle around

within the chip as asserted by Applicant (see amendment filed on 10/31/2003, page 10, second paragraph from bottom).

As per **claim 19**, "devices" (5) should be --drivers-- for proper antecedent basis; --, said wirings are-- should be inserted before "peripherally" (line 5) to clarify that the wirings and not the drivers are peripherally disposed to circle around within the chip as asserted by Applicant (see amendment filed on 10/31/2003, page 10, second paragraph from bottom).

As per **claim 13**, "the output bit groups surround" (line 2) should be --each of the output bit groups surrounds--for further clarification since "output bit groups" were not previously recited per se and for proper grammar; "the memory" (line 2) should be --memory-- for proper antecedent basis.

As per **claims 11-17,20**, the claims are also objected to incorporating the above errors into the respective claims by claim dependency.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-3** are rejected under 35 U.S.C. 102(b) as being anticipated by **Bright et al.** (US Patent No. 6,008,821).

As per **claims 1,2,3**, all of the elements of the claims are illustrated in Fig. 1, wherein the drivers (i.e., I/O drivers receivers) are equally connected to the memory portions (12), which are equally arranged in the vicinity of the drivers, grouped into four sections shown, wherein each memory portion are arranged at the center portion of the chip in that the memory portions 12 are each symmetrically, centrally formed from the center portion of the chip 10 as shown, wherein since the drivers drives a portion of the LCD display and/or the CRT display (col. 9, lines 53-67), the drivers applying to the anode and cathode portions of the display components are inherently included.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 10-13,19-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bright et al.** (US Patent No. 6,008,821) in view of **Stoller** (US Patent No. 5,754,171).

As per **claims 10,19,20**, **Bright et al.** disclose all of the elements of the claims as discussed in the rejection of claims 1-3 above. However, **Bright et al.** failed to particularly teach providing a wiring that circles around within the chip as claimed. Such wiring methods are well known in the art for inputting/outputting the signals to different

chips or circuit components, as further taught by **Stoller** (US Patent No. 5,754,171) so that the display device (i.e., LCD) displays the desired data (see Fig. 1 showing the IC chips being connected to other chips and to display device 40, and Fig. 2, showing the various signals for surrounding the chip for connecting the data to/from the chip, including driving/receiving signals; col. 2, line 66 to col. 4, line 60). It would have been obvious to one of ordinary skilled in the art at the time of the invention to further incorporate the wiring method as taught by **Stoller** into the system/method of **Bright et al.** because such incorporation would allow the particular semiconductor chip of **Bright et al.** to be able to be connected to the display device so that the display device displays the desired data as further taught by **Stoller**.

As per **claims 11-13**, **Bright et al.** further disclose all of the elements of the claims are illustrated in Fig. 1, wherein the drivers (IO Drivers Receivers) are at periphery of the chip 10 as shown and properly fitted into the shape of the chip (i.e., to circle fitting shape of the chip) with wirings/connections as shown, wherein the bit group is at least grouped in accordance to corresponding VRAM port 17, digital port 44, triple 8-bit D/A converter 18, wherein since the drivers drives a portion of the LCD display and/or the CRT display (col. 9, lines 53-67), the drivers applying to the anode and cathode portions of the display components are inherently included, and wherein the wirings including power source lines are inherently included in order to make the circuit components functional or operational.

***Allowable Subject Matter***

9. **Claims 4-7** are objected to as being dependent upon a rejected base claim, but would be allowable if claim 4 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. **Claims 14-17** are objected to as being dependent upon a rejected base claim, but would be allowable if the claims are written to overcome the objections due to minor informalities as given above, and if claim 14 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. **Claim 18** is allowed.

12. The following is a statement of reasons for the indication of allowable subject matter:

As per **claims 4-7**, the previous Office Action mailed on 8/1/2003 set forth the patentability of Applicant's claimed invention, wherein as indicated previously, claim 4, which the claims depend, recites the pattern layout method of a semiconductor made in one chip with an anode driver, a cathode driver, and memory portions comprising the inventive step of forming a dummy pattern adjacent to the output bit group and having a shape equivalent to the output region, which the prior arts made of record failed to teach or suggest. Accordingly, the claimed invention is novel and un-obvious over the prior arts made of record.

As per **claims 14-17**, the previous Office Action mailed on 8/1/2003 set forth the patentability of Applicant's claimed invention, wherein as indicated previously, claim 14, which the claims depend, recites pattern layout method of a semiconductor device constituting drivers for driving display where drivers, memory portions made in one chip,

the drivers arranging plural output regions corresponding to one bit to constitute output bit groups, the method comprising the inventive step of forming a dummy pattern adjacent to the output bit group and having a shape equivalent to the output region,, which the prior arts made of record failed to teach or suggest. Accordingly, the claimed invention is novel and un-obvious over the prior arts made of record.

As per **claim 18**, the claim recites pattern layout method of a semiconductor chip comprising the inventive step of forming a dummy pattern adjacent to the output bit group, said dummy pattern having a shape equivalent to the output region, which the prior arts made of record failed to teach or suggest. Accordingly, the claimed invention is novel and un-obvious over the prior arts made of record.

#### ***Remarks***

13. The objections of **claims 1-17** due to the noted informalities are withdrawn in light of Applicant's amendment filed on 10/31/2003 which corrected the noted informalities. However, as per **claims 10-17,19-20**, Applicant's amendments to the claims introduced new errors as indicated above.

14. As per **claims 1-3**, Applicant argued that **Bright et al.** failed to anticipate the claims because the drivers do not include "a plurality of output regions" as recited in claim 1. The Examiner is not persuaded. As shown in Figure 1, there are at least two separate output regions of I/O drivers/receivers (one on opposite side of the chip 10) and further within each I/O drivers/receivers block, the connections 17, 44 and connections from driver 18 are composed of several bit lines (i.e., accessing multi-bit



lines of DRAMs, 8-bit D/A converter) (see col. 5, lines 10-39) which inherently results in multi-bits driver lines and corresponding drivers/receivers for each bit line.

15. The rejections of **claims 10-13** under 35 U.S.C. 102(b) as being anticipated by **Bright et al.** (US Patent No. 6,008,821) are withdrawn as pointed out by Applicant that **Bright et al.** failed to disclose providing a wiring that circles around within the chip as claimed. However, as given in the new rejection above as necessitated by Applicant's amendment, **Bright et al.** in view of **Stoller** (US Patent No. 5,754,171) provides for all of the elements of the claims, wherein although **Bright et al.** do not disclose these wirings, such wiring methods are well known in the art for inputting/outputting the signals to different chips or circuit components, as further taught by **Stoller** (US Patent No. 5,754,171) so that the display device (i.e., LCD) displays the desired data, as given the new rejection above.

16. As per **claims 19-20**, the claims are newly rejected as given in the rejection above as necessitated by Applicant's amendment, wherein **Bright et al.** in view of **Stoller** (US Patent No. 5,754,171) similarly provides for all of the elements of the claims.

### **Conclusion**

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is requested to consider them carefully in response to this Office Action.

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Flexitime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

**Any response to this action should be mailed to:**

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

**or faxed to:**

703-872-9318 (for Before-Final) and 703-872-9319 (for After-Final) for  
formal communications intended for entry,

**Or:**

(571) 273-1895 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT" and let the examiner know prior to faxing).

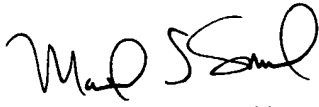
**20. Applicant should note that effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address for transitioning to the new Office location in Alexandria, VA, wherein correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must now be addressed to:**

**Commissioner for Patents**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**

PK   
March 6, 2004

  
MATTHEW SMITH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800